



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

004120

D117-762-011  
Job Sheet 178909



Part No: D117-762-011

Job Qty: 1 ea

Part Name: Skidtube with Standard Wearplates Fits LH or RH



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/11/18

Job Tracking No:

Due Date: 7/6/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG DSI9771 REV A, IIN-D117-762 REV E IPP Rev:A 07.06.11 New Issue EC IPP Rev:B 08-02-22 change to revA DD verified by:ec IPP Rev C 08.12.19 incorporated DSI9435 EC verified by:DD IPP REV:D 13.11.14 IIN REV.C DD VERF:JLM IPP REV:E 15.06.11 IIN REV.D DD VERF:JLM IPP REV:F 17.01.17 PER CHG004 (dsi9771) DD VERF:JLM IPP REV:G 17.08.16 PER CHG005 DD VERF:DP

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |  | Lead Time |
|-------|--------------------|-------|------------|----------|-----------|---------|-----------------------|--|-----------|
|       |                    |       |            |          | Setup hrs | Run Hrs | Workcenter / Supplier |  |           |
| 90    | Start up Operation | 1 Ea  | 7/6/18     | 7/6/18   | 0.00      | 0.00    | Start Up Stores/Pkg-1 |  |           |
| 110   | Packaging          | 1 pcs | 7/6/18     | 7/6/18   | 0.00      | 0.00    | Packaging1-1          |  |           |
| 120   | QC                 | 1 pcs | 7/6/18     | 7/6/18   | 0.00      | 0.00    | QC4                   |  |           |
| 130   | Packaging          | 1 pcs | 7/6/18     | 7/6/18   | 0.00      | 0.00    | Packaging3-1          |  |           |
| 135   | DC                 | 1 pcs | 7/6/18     | 7/6/18   | 0.00      | 1.52    | DC                    |  |           |
| 140   | QC21-FG            | 1 Ea  | 7/6/18     | 7/6/18   | 0.00      | 0.00    | QC21                  |  |           |

Part Op 130 - Identify and pack for shipping as per PPP D117-762-011 Location :FG081  
Descriptions: 135 - Photocopy bluefile & type labels per PPP D117-762-011 CHG005

### Job BOM

| Part / Item  | Component Name       | Quantity    | Operation             | Container       |
|--------------|----------------------|-------------|-----------------------|-----------------|
| AN6C52A      | Bolt ✓ AN6-52A       | 2 Ea (2 ea) | 90-Start up Operation | FM127044        |
| D3512-041    | Wearplate            | 2 Ea (2 ea) | 90-Start up Operation | S060165         |
| D5300-1      | GHL Bushing          | 2 Ea (2 ea) | 90-Start up Operation | S055787         |
| D5301-1      | GHL Plug             | 2 Ea (2 ea) | 90-Start up Operation | S056113         |
| MS21043-6    | Nut MS21042L0        | 2 Ea (2 ea) | 90-Start up Operation | S041164 S067266 |
| D117-762-041 | Replacement Skidtube | 1 Ea (1 ea) | 110-Packaging         | S084652         |

### Job Allocations

| Operation             | Component Part | Required | Inventory | Allocated |
|-----------------------|----------------|----------|-----------|-----------|
| 90-Start up Operation | AN6C52A        | 2        | 8         | 0         |
|                       | D3512-041      | 2        | 6         | 0         |
|                       | D5300-1        | 2        | 39        | 0         |
|                       | D5301-1        | 2        | 42        | 0         |
|                       | MS21043-6      | 2        | 208       | 0         |
|                       | D117-762-041   | 1        | 0         | 0         |
| 110-Packaging         |                |          |           |           |

### Part Specifications

Specification could not be found.

S084652

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |             |                          |                            |                          |            |                          |                     |                          |             |                          |
|--------------------------------------------------------------|-------------|--------------------------|----------------------------|--------------------------|------------|--------------------------|---------------------|--------------------------|-------------|--------------------------|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ | DISPOSITION |                          | AGAINST DEPARTMENT/PROCESS |                          |            |                          |                     |                          |             |                          |
|                                                              | Rework      | <input type="checkbox"/> | Skid-tube                  | <input type="checkbox"/> | Cross tube | <input type="checkbox"/> | Water Jet           | <input type="checkbox"/> | Engineering | <input type="checkbox"/> |
|                                                              | Scrap       | <input type="checkbox"/> | Machining                  | <input type="checkbox"/> | Small Fab  | <input type="checkbox"/> | Prod. Eng. Coord.   | <input type="checkbox"/> | Quality     | <input type="checkbox"/> |
|                                                              | Use-as-is   | <input type="checkbox"/> | Thermoforming              | <input type="checkbox"/> | Finishing  | <input type="checkbox"/> | Rec/Store/Packaging | <input type="checkbox"/> | Other       | <input type="checkbox"/> |

|             |               |                      |                       |
|-------------|---------------|----------------------|-----------------------|
| Date: _____ | Step #: _____ | QTY Effective: _____ | MRB (QS1042) Approval |
|-------------|---------------|----------------------|-----------------------|

|                                  |             |                                              |
|----------------------------------|-------------|----------------------------------------------|
| Description Work Order Deviation | Disposition | Completed By                                 |
|                                  |             | Lead hand / Supervisor Approval Verification |
|                                  |             | QC / QA Coordinator Approval                 |
|                                  |             |                                              |

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
CANADA  
TEL.: 1 613 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

  
Container No: S096484  
Part: D117-762-011  
Job No: 178909  
Serial No/Batch: S096484  
Revision: A / E  
Inspector:  
Exp Date:  
Instructions: FAA STC SR01853SE 15/10/2014 TC STC LoA RDIMS-4374899 08/0

|                    |                          |                       |                          |
|--------------------|--------------------------|-----------------------|--------------------------|
| Root Cause         |                          |                       |                          |
| Environment        | <input type="checkbox"/> | No Re-verification    | <input type="checkbox"/> |
| Design             | <input type="checkbox"/> | Operator              | <input type="checkbox"/> |
| Doc/Data           | <input type="checkbox"/> | Offset/Setup          | <input type="checkbox"/> |
| Equip/Tooling      | <input type="checkbox"/> | Supplier              | <input type="checkbox"/> |
| Handling/Pre       | <input type="checkbox"/> | Training              | <input type="checkbox"/> |
| Material           | <input type="checkbox"/> | Use for Testin        | <input type="checkbox"/> |
| Internal Transport | <input type="checkbox"/> | Poor Informa          | <input type="checkbox"/> |
| Tribal Knowledge   | <input type="checkbox"/> | Rushing               | <input type="checkbox"/> |
| LOA                | <input type="checkbox"/> | Product Improvement   | <input type="checkbox"/> |
| Substation         | <input type="checkbox"/> | Process Improvement   | <input type="checkbox"/> |
| Past Expiry Date   | <input type="checkbox"/> | Manufacturing Process | <input type="checkbox"/> |
| Misidentified      | <input type="checkbox"/> | Past Due              | <input type="checkbox"/> |
| OTHER: _____       |                          | Marks/Chatter         | <input type="checkbox"/> |
|                    |                          | Off center            | <input type="checkbox"/> |
|                    |                          | ulled                 | <input type="checkbox"/> |
|                    |                          | ce                    | <input type="checkbox"/> |
|                    |                          | Positioned Wrong      | <input type="checkbox"/> |
|                    |                          | Outside Dimensions    | <input type="checkbox"/> |
|                    |                          | Over/Under tolerance  | <input type="checkbox"/> |
|                    |                          | Part Incorrect        | <input type="checkbox"/> |
|                    |                          | Part Lost/Missing     | <input type="checkbox"/> |
|                    |                          | Part Moved            | <input type="checkbox"/> |
|                    |                          | Drawing               | <input type="checkbox"/> |
|                    |                          | Finish                | <input type="checkbox"/> |
|                    |                          | Misread               | <input type="checkbox"/> |
|                    |                          | Turning Sequence      | <input type="checkbox"/> |



# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D117-762 REV. E AND  
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D117-762 REV. 4

REF FAA STC: SR01853SE

REF: TC LETTER OF ACCEPTANCE RDIMS-4374899

REF EASA STC: EASA.10017063

## 1.0 PURPOSE

The purpose of this Dart Service Instruction (DSI) is to replace the ground handling lugs (D3864-1 Bushings, AN6C51A Bolts and MS21043-6 Nuts) on the D117-762-XXX Skidtubes with a structurally superior lug design (D5300-1 Bushings, D5301-1 Plugs, AN6C52A Bolts, MS21043-6 Nuts) as shown in Figure 1. The new hardware will be included in D117-762-011 @ CHG 004 and subsequent.

## 2.0 INSTALLATION

For D117-762-011 @ CHG 004 and subsequent, the ground handling hardware should be installed as follows:

- 2.1 Loosely install (qty 2) D5300-1 GHL Bushing & (qty 2) D5301-1 GHL Plug wet with Proseal 890 or MIL-S-8802 Class B2 Sealant in location shown in Figure 1.
- 2.2 Install (qty 2) AN6C52A Bolts and (qty 2) MS21043-6 Nuts in accordance with Figure 1. Clean up squeezed out Proseal and apply fillet seal around D5300-1 & D5301-1.
- 2.3 Torque AN6C52A Bolts 160 - 190 in-lbs (18.1 - 21.5 N-m).

## 3.0 PARTS LIST

For D117-762-011 @ CHG 004 and subsequent, the Part List in IIN-D117-762 and ICA-D117-762 is modified as follows:

**IS**

| ITEM | QTY<br>-011 | PART NUMBER  | DESCRIPTION           |
|------|-------------|--------------|-----------------------|
|      | X           | D117-762-011 | SKIDTUBE INSTALLATION |
| 50   | 2           | AN6C52A      | BOLT <i>AN6C52A</i>   |
| 51A  | 2           | D5300-1      | GHL BUSHING           |
| 51B  | 2           | D5301-1      | GHL PLUG              |
| 52   | 2           | MS21043-6    | NUT <i>MS21043-6</i>  |

|            |                    |                                                                                                                                                                                                                                                                                     |              |
|------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| A          | NEW ISSUE          | RF                                                                                                                                                                                                                                                                                  | 17.01.09     |
| REV.       | DESCRIPTION        | BY                                                                                                                                                                                                                                                                                  | DATE         |
| DESIGN     | RF                 | <b>DART AEROSPACE, LTD</b><br>EUGENE, OR                                                                                                                                                                                                                                            |              |
| DRAWN      | RF                 |                                                                                                                                                                                                                                                                                     |              |
| CHECKED    | WK                 | DRAWING NO.                                                                                                                                                                                                                                                                         | REV.A        |
| MFG. APPR. | N/A                | DSI 9771                                                                                                                                                                                                                                                                            | SHEET 1 OF 2 |
| APPROVED   | HS                 | TITLE                                                                                                                                                                                                                                                                               | SCALE        |
| DE APPR.   | <i>[Signature]</i> | GHL UPGRADE KIT                                                                                                                                                                                                                                                                     | NTS          |
| DATE       | 17.01.09           | COPYRIGHT ©2017 BY DART AEROSPACE USA, INC<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br>NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br>WRITTEN PERMISSION FROM DART AEROSPACE, LTD. |              |



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

**D117-762-011**  
**Job Sheet 178414**



**Part No:** D117-762-011

**Job Qty:** 1 ea

**Part Name:** Skidtube with Standard Wearplates Fits LH or RH



**Part Weight:** 0 lbs

**Status:** Scheduled

**Priority:** Medium

**Job Created:** 5/31/18

**Job Tracking No:**

**Due Date:** 7/11/18

**Created By:** Jesse White

**Type:** SOLD

**Description:**

**Note:** DWG DSI9771 REV A, IIN-D117-762 REV E IPP Rev:A 07.06.11 New Issue EC IPP Rev:B 08-02-22 change to revA DD verified by:ec IPP Rev C 08.12.19 incorporated DSI9435 EC verified by:DD IPP REV:D 13.11.14 IIN REV.C DD VERF:JLM IPP REV:E 15.06.11 IIN REV.D DD VERF:JLM IPP REV:F 17.01.17 PER CHG004 (dsi9771) DD VERF:JLM IPP REV:G 17.08.16 PER CHG005 DD VERF:DP

**Ship Via:**

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           |
|-------|--------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|
|       |                    |       |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |
| 90    | Start up Operation | 1 Ea  | 7/11/18    | 7/11/18  | 0.00      | 0.00    | Start Up Stores/Pkg-1 |           |
| 110   | Packaging          | 1 pcs | 7/11/18    | 7/11/18  | 0.00      | 0.00    | Packaging1-1          |           |
| 120   | QC                 | 1 pcs | 7/11/18    | 7/11/18  | 0.00      | 0.00    | QC4                   |           |
| 130   | Packaging          | 1 pcs | 7/11/18    | 7/11/18  | 0.00      | 0.00    | Packaging3-1          |           |
| 135   | DC                 | 1 pcs | 7/11/18    | 7/11/18  | 0.00      | 1.52    | DC                    |           |
| 140   | QC21-FG            | 1 Ea  | 7/11/18    | 7/11/18  | 0.00      | 0.00    | QC21                  |           |

Part Op 130 - Identify and pack for shipping as per PPP D117-762-011 Location :FG081  
Descriptions: 135 - Photocopy bluefile & type labels per PPP D117-762-011 CHG005

### Job BOM

| Part / Item  | Component Name       | Quantity    | Operation             | Container |
|--------------|----------------------|-------------|-----------------------|-----------|
| AN6C52A      | Bolt                 | 2 Ea (2 ea) | 90-Start up Operation | FM12704   |
| D3512-041    | Wearplate            | 2 Ea (2 ea) | 90-Start up Operation | 5082568   |
| D5300-1      | GHL Bushing          | 2 Ea (2 ea) | 90-Start up Operation | 5055787   |
| D5301-1      | GHL Plug             | 2 Ea (2 ea) | 90-Start up Operation | 5056113   |
| MS21043-6    | Nut                  | 2 Ea (2 ea) | 90-Start up Operation | 506726    |
| D117-762-041 | Replacement Skidtube | 1 Ea (1 ea) | 110-Packaging         | 5084653   |

### Job Allocations

| Operation             | Component Part | Required | Inventory | Allocated |
|-----------------------|----------------|----------|-----------|-----------|
| 90-Start up Operation | AN6C52A        | 2        | 8         | 0         |
|                       | D3512-041      | 2        | 8         | 0         |
|                       | D5300-1        | 2        | 41        | 0         |
|                       | D5301-1        | 2        | 43        | 0         |
|                       | MS21043-6      | 2        | 218       | 0         |
| 110-Packaging         | D117-762-041   | 1        | 0         | 0         |

**5084653**

Plex 5/31/18 11:51 AM dart.white.jesse



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K64 1K7  
CANADA  
TEL.: 1 813 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

**Container No: S096491**



**Part: D117-762-011**

**Job No: 178414**

**Serial No/Batch: S096491**

**Revision: A / E**

**Inspector:**

**Exp Date:**

**Instructions: FAA STC SR01853SE 15/10/20, TC STC LoA RDIMS-4374899 08/0**



**Part Specifications**

Specifications could not be found.

*Plex 5/31/18 11:51 AM dart.white.jesse*

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D117-762 REV. E AND  
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D117-762 REV. 4

REF FAA STC: SR01853SE

REF: TC LETTER OF ACCEPTANCE RDIMS-4374899

REF EASA STC: EASA.10017063

## 1.0 PURPOSE

The purpose of this Dart Service Instruction (DSI) is to replace the ground handling lugs (D3864-1 Bushings, AN6C51A Bolts and MS21043-6 Nuts) on the D117-762-XXX Skidtubes with a structurally superior lug design (D5300-1 Bushings, D5301-1 Plugs, AN6C52A Bolts, MS21043-6 Nuts) as shown in Figure 1. The new hardware will be included in D117-762-011 @ CHG 004 and subsequent.

## 2.0 INSTALLATION

For D117-762-011 @ CHG 004 and subsequent, the ground handling hardware should be installed as follows:

- 2.1 Loosely install (qty 2) D5300-1 GHL Bushing & (qty 2) D5301-1 GHL Plug wet with Proseal 890 or MIL-S-8802 Class B2 Sealant in location shown in Figure 1.
- 2.2 Install (qty 2) AN6C52A Bolts and (qty 2) MS21043-6 Nuts in accordance with Figure 1. Clean up squeezed out Proseal and apply fillet seal around D5300-1 & D5301-1.
- 2.3 Torque AN6C52A Bolts 160 - 190 in-lbs (18.1 - 21.5 N-m).

## 3.0 PARTS LIST

For D117-762-011 @ CHG 004 and subsequent, the Part List in IIN-D117-762 and ICA-D117-762 is modified as follows:

IS

| ITEM | QTY<br>-011 | PART NUMBER  | DESCRIPTION           |
|------|-------------|--------------|-----------------------|
|      | X           | D117-762-011 | SKIDTUBE INSTALLATION |
| 50   | 2           | AN6C52A      | BOLT <i>AN6C52A</i>   |
| 51A  | 2           | D5300-1      | GHL BUSHING           |
| 51B  | 2           | D5301-1      | GHL PLUG              |
| 52   | 2           | MS21043-6    | NUT <i>MS21043-6</i>  |

DAS  
6  
9-89

JUL 26 2018

|            |                    |                                                                                                                                                                                                                                                                                      |              |
|------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| A          | NEW ISSUE          | RF                                                                                                                                                                                                                                                                                   | 17.01.09     |
| REV.       | DESCRIPTION        | BY                                                                                                                                                                                                                                                                                   | DATE         |
| DESIGN     | RF                 | <b>DART AEROSPACE, LTD</b><br>EUGENE, OR                                                                                                                                                                                                                                             |              |
| DRAWN      | RF                 |                                                                                                                                                                                                                                                                                      |              |
| CHECKED    | WK                 | DRAWING NO.                                                                                                                                                                                                                                                                          | REV.A        |
| MFG. APPR. | N/A                | DSI 9771                                                                                                                                                                                                                                                                             | SHEET 1 OF 2 |
| APPROVED   | HS                 | TITLE                                                                                                                                                                                                                                                                                | SCALE        |
| DE APPR.   | <i>[Signature]</i> | GHL UPGRADE KIT                                                                                                                                                                                                                                                                      | NTS          |
| DATE       | 17.01.09           | COPYRIGHT © 2017 BY DART AEROSPACE USA, INC<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br>NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br>WRITTEN PERMISSION FROM DART AEROSPACE, LTD. |              |